

We Claim:

1. A method for automated processing of fault hypotheses in a course of a fault cause analysis in a case of a fault event in a technical installation, which comprises the steps of:

providing a data processing system which uses knowledge-based models for the fault cause analysis and physical models of installation functions and processes carried out by the technical installation, the data processing system having first means for calculating and storing installation and process states and the first means having access to the physical models and to data relating to the technical installation stored in a data server, the data processing system further having second means for hypothesis processing and an input/output device;

determining, through a user of the data processing system, an existence of a fault hypothesis;

accessing, through the second means for hypothesis processing, results of a calculation of the installation and process states and accessing a checklist of the knowledge-based models for automatically verifying the fault hypothesis on a basis of conditions associated with checklist items in the checklist;

entering a verification result for each checklist item in a result list; and

outputting the result list.

2. A system for automated processing of fault hypotheses in a course of a fault cause analysis in a case of a fault event in a technical installation, the system comprising:

a data server storing data relating to the technical installation; and

a data processing system processing knowledge-based models for the fault cause analysis and physical models of technical installation functions and processes which can be carried out by the technical installation, said data processing system containing:

first means for calculating and storing installation and process states, said first means having access to the physical models and to the data stored in said data server for the technical installation;

second means for hypothesis processing; and

an input/output device connected to said second means for hypothesis processing.

3. The system according to claim 2, wherein said data processing system is configured such that once a user has predetermined a fault hypothesis, said second means for hypothesis processing accesses results of a calculation of the installation and process states and accesses a checklist of the knowledge-based models to automatically verify the fault hypothesis on a basis of conditions which are associated with checklist items in the checklist, enters the verification result for each checklist item in a result list, and outputs the result list.